IBM Presents

Extended Services

QUERY MANAGER

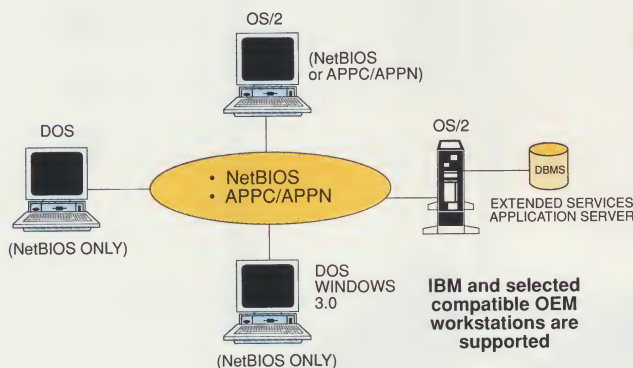DATABASE MANAGER

COMMUNICATIONS MANAGER

Database and Communications for OS/2

Access the Power and Versatility

*Extended Services** expands your alternatives for implementing a wide variety of business applications across IBM and selected compatible OEM workstations. That's because Extended Services contains an industrial strength SQL relational Database Manager that helps you manage data and a Communications Manager that lets you move it with ease locally across a LAN and/or more widely across your enterprise network. So you can distribute everything from data to applications to processing tasks among workstations, client-server departmental systems, and centralized hosts. You can select the product which best suits your needs:

- Extended Services* for OS/2*— single workstation product with remote database server access.

- Extended Services* with Database Server for OS/2*— database client/server product.

Database Manager Environment (LAN)

Extended Services Highlights — Database Manager

…For Application Performance

- State-of-the-art Optimizer
- Static SQL and Dynamic SQL
- Stored Procedures (Database Application Remote Interface)
- Automatic Record Blocking

…For Concurrency

- Multiple Levels of Data Isolation
- Row Level Locking

…For Data Integrity and Protection

- Declarative Referential Integrity
- SQL GRANT/REVOKE
- Full Implementation of Views
- Transaction Management
- Forward Recovery

…For Client-Server Support (server product)

- Distributed Feature — Enables OS/2, DOS and DOS Windows® client workstations using NetBIOS to interact with OS/2 database servers. Only the base operating system, the DB client code and LAN transport code are required

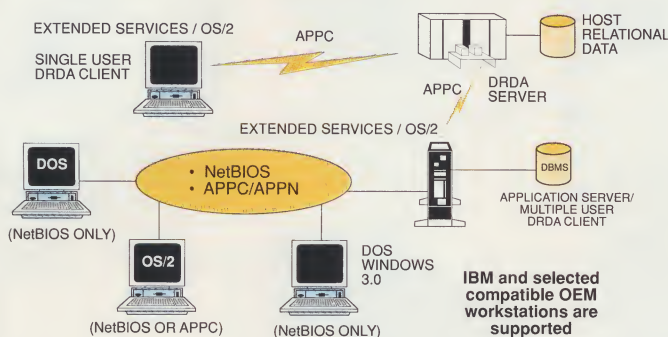### …For Front-End, Database Administration, and Application Development Tools

- Query Manager provides a user-friendly Presentation Manager* CUA interface for Query, Report, Data Entry/Edit, and table creation with full use of Menus Procedures and Panels for application development

- Database Administration Tools with graphical interfaces for:
  - Configuring Database Manager and databases
  - Configuring remote client-server and gateway connections
  - Forward Recovery/backing up/and restoring databases
  - First Failure Support Technology/2 that provides automatic timely logging of database errors and error-related information

- DBM Command Line Interface
  - Provides the ability to issue SQL statements, database environmental commands, and utilities directly from the OS/2 Command Line
  - Supports DDL/DML/DCL and union/intersect/difference functions
  - SQL statements can access LAN databases or host databases when used in conjunction with Distributed Database Connection Services/2*

- Over 35 database front-end tools and two dozen application development tools from Independent Software Developers

# of IBM Extended Services for OS/2.

At the same time, IBM's new IBM SAA Distributed Database Connection Services/2* (DDCS/2) Version 1.0 will work in conjunction with Extended Services to support your long range enterprise client-server distributed database application strategy. Implementing IBM's Distributed Relational Database Architecture (DRDA), DDCS/2 will provide OS/2, DOS and DOS Windows Versions 3.0 applications with remote-unit-of-work read and write transparent access to IBM's DB2* Version 2 Release 3, SQL/DS* Version 3 Release 3 and the database manager component of the OS/400 Version 1 Release 2 Modification Level 1.

Extended Services will enable you to port applications across environments that vary in terms of connectivity, communications protocols, operating systems and hardware. It will support distributed processing and will speed development of applications that depend on quick access to departmental and/or host relational databases.

Database Manager Environment (Host Access)

EXTENDED SERVICES / OS/2
SINGLE USER DRDA CLIENT
APPC
HOST RELATIONAL DATA
APPC
DRDA SERVER
EXTENDED SERVICES / OS/2
DOS
(NetBIOS ONLY)
• NetBIOS
• APPC/APPN
DBMS
APPLICATION SERVER/ MULTIPLE USER DRDA CLIENT
OS/2
(NetBIOS OR APPC)
DOS WINDOWS 3.0
(NetBIOS ONLY)
IBM and selected compatible OEM workstations are supported

Extended Services Highlights — Communications Manager
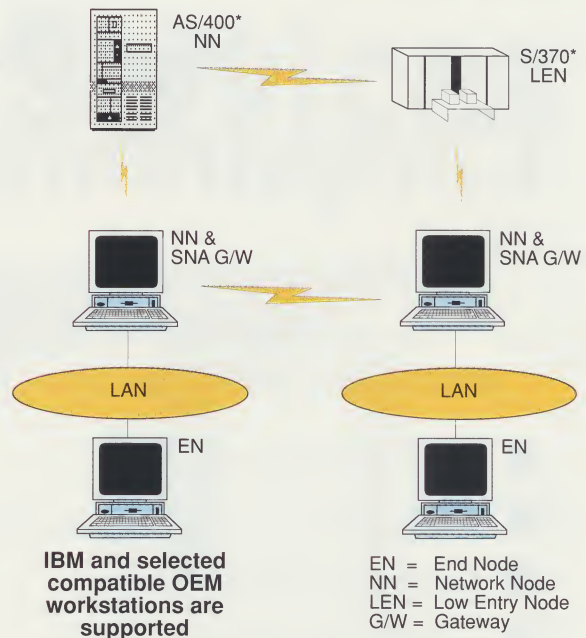
...For End User Productivity

◆ Emulation of 3270, and 5250 terminals with enhancement of existing host applications via workstation programming support

◆ LAN function for 3174 coax-attached workstations

◆ ASCII emulation for accessing ASCII hosts data services and bulletin boards

...For Advanced Networking

◆ Integration of Peer-to-Peer Networking Support (APPN)

◆ Improved APPC performance and configuration

◆ Choice of connections including SDLC, X.25, and Token-Ring and Ethernet LANS

◆ Central S/370 Netview Administration of remote servers and workstations

APPN Distributed Processing Network

AS/400* NN
S/370* LEN
NN & SNA G/W
NN & SNA G/W
LAN
LAN
EN
EN

IBM and selected compatible OEM workstations are supported

EN = End Node
NN = Network Node
LEN = Low Entry Node
G/W = Gateway

Above diagram shows a typical (simplified) enterprise network using the peer-to-peer (APPN) support provided by PS/2s, AS/400s, and S/370s. The end user workstations can undertake a combination of 3270 and 5250 emulation, access LAN services from network nodes, and access databases on the network nodes and hosts. In addition, any end user may communicate with any other end user using, for example APPC applications.
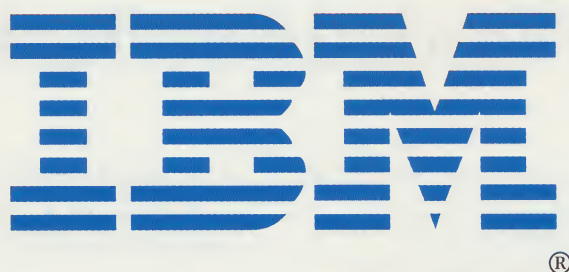
...For Application Development

◆ Support for APPC and CPI-C for distributed processing and portability of applications across the SAA family

◆ Additional API's including those for emulator support, LU0, LANs, ASCII applications, and systems management

IBM
® **Programming Family**

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IBM

Announces

Multi-Vendor Compatibility For OS/2!!!

IBM extends its support for selected models
of the following PC manufacturers for
Extended Services for OS/2*, and LAN Server* 2.0.

- ■ AST Research, Inc.
- ■ Compaq Computer, Corp.
- ■ CompuAdd, Corp.
- ■ GRiD Systems, Corp.

- ■ NCR, Corp.
- ■ Olivetti
- ■ Siemens/Nixdorf
- ■ Tandy, Corp.

AND

IBM has also released early code to a large number
of companies for their compatibility testing.

These companies include:

- ◆ Acer American Corporation
- ◆ Advanced Logic Research, Inc.
- ◆ Apricot Computers Ltd.
- ◆ Club American Technologies, Inc.
- ◆ CSS Laboratories, Inc.
- ◆ Digital Equipment Corporation (DEC)
- ◆ Dell Computer Corporation
- ◆ Epson Portland, Inc.
- ◆ Everex Systems, Inc.
- ◆ Hewlett-Packard Company
- ◆ INTEL Corporation
- ◆ Leading Edge Products, Inc.

- ◆ NEC Technologies, Inc.
- ◆ NetFRAME Systems, Inc.
- ◆ Northgate Computer Systems, Inc.
- ◆ Parallan Computer, Inc.
- ◆ Reply Corporation
- ◆ Tandon Corporation
- ◆ Tatung Company of America, Inc.
- ◆ The Network Connection, Inc.
- ◆ Toshiba of America
- ◆ Tricord Systems, Inc.
- ◆ Twinhead Corporation
- ◆ WYSE Technology

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